

Testimony of
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Mr. Chairman, and Members of the Subcommittee, my name is David E. Swayne and I am the Director of the Southeast Poultry Research Laboratory (SEPRL) located here in Athens, Georgia. Our research facility is part of the Department of Agriculture's (USDA) Agricultural Research Service (ARS). I would be remiss if I failed to mention that ARS is celebrating its 50th anniversary. Although, ARS can trace its origins back to early 19th century seed collection efforts, it wasn't officially established by the current name until 1953. In recognition of the agency's accomplishments and promising future, ARS labs all over the country are reflecting on our research that affects the lives of so many people in the food we eat, the clothes we wear, and the environment in which we live. SEPRL is very proud of the impact it has made in the ARS poultry disease research program and I appreciate this opportunity to discuss our contributions as well as the opportunities and challenges for the next 50 years and beyond.

As you know, poultry is the number one agricultural industry in Georgia as well as several other southern states. That makes it extremely important to the economy not only in our state but for most other southern states as well. Nationally, poultry industries generate over \$22 billion in receipts each year with an average of \$2.25 billion of poultry products being exported for 1999-2003. Stated another way, the United States controls 40 percent of the world exports of poultry products.

Established in 1962, the Southeast Poultry Research Laboratory provides critical research information to solve health problems of poultry industries in order to maintain their economic viability and expand trading opportunities. The scientific staff at our laboratory includes a diverse pool of professional expertise, including veterinarians, microbiologists, immunologists, pathologists, molecular virologists, an agricultural engineer and a physiologist in order to tackle the complex poultry health problems of today. The laboratory complex consists of specialized facilities, designed and operated to contain highly infectious diseases of poultry, and to allow research on these diseases to be performed without posing a threat to the environment, the public, or to poultry industries. Throughout four decades of service, SEPRL has maintained close ties with industry, academia and other government agencies, consistently striving to provide an open, responsive research atmosphere.

Specifically, our mission at SEPRL is to provide scientific solutions to national and international exotic and emerging poultry disease problems through a comprehensive research program emphasizing basic and applied research in diagnostics, prevention, and control strategies, prediction of disease outbreaks, molecular epidemiology, and understanding disease

pathogenesis. The diseases and organisms studied include avian influenza, Newcastle disease, intestinal viruses of turkeys (such as poult enteritis mortality syndrome [PEMS]), avian metapneumovirus, West Nile virus, SARS-coronavirus and *Salmonella enteritidis*. Research is also directed at acquiring fundamental knowledge of the chicken's and turkey's immune responses to infectious diseases and to develop and evaluate vaccines. Immunological and molecular genetic techniques are used to enhance diagnostic capabilities by improving the detection, identification, and characterization of infectious agents. All laboratory programs are research-oriented and no routine diagnostic services are provided. Some of our projects meet agricultural needs included in the Department of Homeland Security's (DHS) programs.

SEPRL is committed to responding to challenges of both poultry industries and regulatory agencies through both basic and applied research programs. Our contributions and importance are highlighted in recent accomplishments which include: 1) studies with the H5N1 highly pathogenic avian influenza in Asia that determined which birds were susceptible or resistant, provided research for development and assessment of effective poultry vaccines, understand the source and movement of these viruses, and assisted public health agencies such as CDC in research on avian influenza zoonotic issues; 2) developed rapid tests for avian influenza now used by the USDA National Veterinary Services Laboratories as the official test for avian influenza diagnosis; 3) provided research data to U.S. representatives to overcome non-tariff trade barriers on egg products and meat exports; 4) partnered with California Food and Agricultural Diagnostic Lab and USDA National Veterinary Services Laboratories in the co-development of rapid tests (RRT-PCR) to detect Newcastle disease in California; 5) determined that poultry were not involved in infection or dissemination of SARS in Asia; 6) determined that

chickens and turkeys are not amplifiers of West Nile virus, but domestic geese can be amplifiers of the virus and infect mosquito vectors; and 7) developed vaccines that allow differentiation of vaccinated from infected birds for Newcastle disease and avian pneumovirus. These challenges and accomplishments are prime examples of the need for sustained federal funding of research programs to address national and international disease issues. Particularly important are those diseases that affect the poultry industries in terms of economic viability, international trade, and food safety.

The success of our research at SEPRL is dependent not only upon our own scientists and facilities, but also the collaborations with other government agencies and academia. Our university partners are especially important in that they provide needed expertise outside of our own scientists. Our recent successful collaborations include: 1) wild bird surveys in North and South America, and Pacific Rim Countries for avian influenza and Newcastle disease viruses with Museum of Natural History at the University of Alaska-Fairbanks, the Department of Veterinary Preventive Medicine at Ohio State University, and Southeastern Cooperative Wildlife Disease Study at the University of Georgia; 2) rapid tests to detect respiratory pathogens and differentiate these from avian influenza and Newcastle disease, co-developed with the Department of Veterinary Pathobiology at the University of Minnesota, Department of Avian Medicine at the University of Georgia, the University of Delaware and the University of California; 3) develop international partnerships for detection of avian influenza and Newcastle disease, with assistance of the College of Veterinary Medicine at Iowa State University; 4) and joint vaccine development and molecular epidemiology studies on avian influenza with the Influenza Branch of the Centers for Disease Control and Prevention. We have enjoyed fruitful

and productive collaborations with these partners and we look forward to building on these investments as well as developing new partnerships.

It should be recognized that SEPRL's world class, problem-solving research is a result of the responsiveness of the President and Congress to the needs of the poultry industries. When emergency situations have arisen such as outbreaks of avian influenza and Newcastle disease, the President's budget requests have included funds for emerging diseases. Congress has appropriated funds to support this work at various locations, including the Southeast Poultry Research Laboratory for research to address the problems.

Mr. Chairman, thank you again for giving me this chance to tell you and subcommittee about the effective research conducted at SEPRL. We still have much work to do and many challenges to undertake. We are very grateful for your support and we look forward to working with Congress toward that end. I will be happy to answer any questions at this time.